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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/674,838 | 09/30/2003 | Simon Chu | RPS920030114US1 | 4468 |

| 45503 | 7590 | 03/23/2006 | | EXAMINER |
|---|---|---|---|---|

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| | | STOYNOV, STEFAN |
|---|---|---|

| ART UNIT | PAPER NUMBER |
|---|---|
| 2116 | |

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/674,838 | CHU ET AL. |
| | Examiner | Art Unit |
| | Stefan Stoynov | 2116 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *30 September 2003*.

2a)☐ This action is **FINAL.**    2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

### *Specification*

The disclosure is objected to because of the following informalities:

On pages 9 and 10, paragraph 0028, lines 3, 4, and 7 recite "signal-bearing media"

whereas claim 15, line 1, recites "computer program product, residing on a computer usable

medium".

Appropriate correction is required.

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine
grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or
improper timewise extension of the "right to exclude" granted by a patent and to prevent
possible harassment by multiple assignees. A nonstatutory obviousness-type double
patenting rejection is appropriate where the conflicting claims are not identical, but at least
one examined application claim is not patentably distinct from the reference claim(s) because
the examined application claim is either anticipated by, or would have been obvious over, the
reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998);
*In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887,
225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA
1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418
F.2d 528, 163 USPQ 644 (CCPA 1969).
A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may
be used to overcome an actual or provisional rejection based on a nonstatutory double
patenting ground provided the conflicting application or patent either is shown to be
commonly owned with this application, or claims an invention made as a result of activities
undertaken within the scope of a joint research agreement.
Effective January 1, 1994, a registered attorney or agent of record may sign a terminal
disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR
3.73(b).

Claims 1-3, 7-10, 14-17, and 21 are provisionally rejected on the ground of

nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2

of copending Application No. 10/698,208. Although the conflicting claims are not identical,

they are not patentably distinct from each other because the limitations in claims 1-3, 7-10,

14-17, and 21 are disclosed in claims 1 and 2 of copending Application No. 10/698,208.

Claims 1-3, 7-10, 14-17, and 21 are nearly identical to claims 1 and 2 of copending

Application No. 10/698,208 except that claims 1-3, 7-10, 14-17, and 21 in the current

application recite "a method, a system, and a computer program product for managing a

secure network boot of a server blade", whereas claims 1 and 2 of copending Application No.

10/698,208 recite "a service for managing a secure network boot of a server blade". The

referred claims encompass any one of "a method, a system, a computer program product,

and a service for managing a secure network boot of a server blade".

This is a <u>provisional</u> obviousness-type double patenting rejection because the

conflicting claims have not in fact been patented.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art
> are such that the subject matter as a whole would have been obvious at the time the invention was made to a
> person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.    Determining the scope and contents of the prior art.
2.    Ascertaining the differences between the prior art and the claims at issue.
3.    Resolving the level of ordinary skill in the pertinent art.
4.    Considering objective evidence present in the application indicating
      obviousness or nonobviousness.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frye,

JR., US Paten Appl. Pub. Num. 2003/0126426, in view of Schell et al., US Patent Num.

6,314,520, and further in view of Pan et al., US Patent Appl. Pub. Num. 2004/0081104.

Re claims 1, 8, and 15, Frye discloses a method, a system, and a computer program

product for managing a secure network boot, the method, system, and computer program

product comprising:

broadcasting a request for a boot program from a server to a network of management

servers (paragraph 0008, lines 8-15, paragraph 0018, lines 11-24, FIG. 2, 112, 114, two

separate 120 – i.e. plurality of management serves in a network);

receiving a response to the request for the boot program, the response being from a

responding management server on the network of management servers, the response

containing directions to a boot program server (paragraph 0019, lines 1-7, lines 25-30,

paragraph 0044, lines 3-9, FIG. 2, 115, 120, 130);

transmitting the response from the responding management server to the server, and

downloading a boot program from a boot program server specified by the responding

management server (paragraph 0019, lines 25-30, paragraph 0020, lines 1-22, paragraph

0022, lines 10-16, paragraph 0023, lines 4-8)

Frye fails to disclose storing a list of trusted management servers, comparing an

identity of the responding management server with a list of trusted management servers, and

upon verifying that the responding management server is on the list of trusted management

servers,

transmitting the response from the responding management server (this step was

addressed by Frye as indicated above and was added here for clarity).

Schell teaches a networked client/server computer system configured to establish a

trusted workstation (column 1, lines 20-22). Schell further teaches each workstation having a

network interface card (NIC), which establishes a trusted connection between the workstation

and the server (column 3, lines 62-65, FIG. 1, 14, 20) through which the workstation

communicates with the server over the computer network (column 4, lines 5-7, FIG. 1, 12,

14). In addition, Schell further teaches the NIC card containing a trusted computing base

(TCB) extensions that provide for securely booting the workstation, the "TBC extensions"

referring to extensions of the server's TCB that operate as part of the workstation's network

trusted computing base (column 2, lines 3-11) (i.e. database of trusted servers contained on

the NIC). Schell also teaches an address confirmation circuit, wherein upon receipt of a

packet, the source address of the received packet is compared for verification that it was sent

from an authorized server (i.e. identity verification) (column 2, lines 30-35, column 3, lines 6-

11, column 4, line 64- column 5, line 2, column 5, lines 13-22). In Schell, the pre-boot

modules are downloaded to the workstation from known trusted servers only (column 2, lines

50-54, column 3, lines 45-49) after meting the identity verification criteria. Thus, the security

of the information stored on a client/server is ensured (column 1, lines 56-59).

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to use the system and method of storing a trusted computing base (TCB) extension

corresponding to trusted boot servers within a NIC used for communication over a network,

the process or identity comparison and verification of the received network packets, and

based upon that comparison downloading pre-boot modules to the client machine from

trusted servers, as suggested by Schell with the method, system, and computer program

product disclosed by Frye in order to implement storing a list of trusted management servers,

comparing an identity of the responding management server with a list of trusted

management servers, and upon verifying that the responding management server is on the

list of trusted management servers, transmitting the response from the responding

management server. One of ordinary skill in the art would be motivated to do so in order to

ensure security of the information being downloaded to the server blade.

Frye and Schell fail to disclose the method, system, and computer program product for

managing a secure network boot (addressed above) of a server blade, the server blade being

in a blade chassis that has multiple server blades, the blade chassis including a switching

means allowing the server blade to communicate with a network.

Pan teaches a blade server having a rack with several chassis where the sever blades

within each chassis communicate with each other and with the network through network

switches (paragraph 0015, lines 3-10, FIG. 1, 10, 12, 14, 16, 20). In Pan, the network

switches incorporate a PXE configuration agent used for secure automatic download of a

configuration image during power or boot up of the blade server (paragraph 0017, lines 1-21,

paragraph 0018, lines 1-9, paragraph 0010, lines 1-4). Thus, configuration time is saved and

erroneous downloads are prevented (paragraph 0010, lines 4-12).

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to use the blade server architecture incorporating network switches allowing the

server blades to communicate with the network and the method of secure download of

configuration images, as suggested by Pan with the with the method, system, and computer

program product disclosed by Frye and Schell in order to implement managing a secure

network boot of a server blade, the server blade being in a blade chassis that has multiple

server blades, the blade chassis including a switching means allowing the server blade to

communicate with a network. One of ordinary skill in the art would be motivated to do so in

order to save configuration time and prevent erroneous downloads to the server blade.

Re claims 2, 9, and 16, Schell further teaches the method, system, and computer

program product, further comprising:

upon determining that the responding management server is not on the list of trusted

management servers, blocking the transmittal of the response from the responding

management server to the server blade (column 5, lines 20-22).

Re claims 3, 10, and 17, Frye and Schell further disclose the method, system, and

computer program product as per claims 2, 9, and 16, further comprising:

upon determining that the responding management server is not on the list of trusted

management servers (Schell, column 5, lines 20-22), generating an alert to a designated

administrator server of the presence of an unauthorized management server on the network

of management servers (Frye, paragraph, 0047, lines 1-22).

Re claims 4, 11, and 18, Pan further teaches the method, system, and computer

program product, wherein the switching means is an Ethernet switch (paragraph 0015, line

8).

Re claims 5, 12, and 19, Pan further teaches the method, system, and computer

program product as per claims 4, 11, and 19, wherein the comparing step is performed by

configuring the Ethernet switch to perform Layer 3 packet filtering to identify Pre-boot

Execution Environment/Bootstrap Protocol (PXE/BootP) traffic, wherein Layer 3 is a network

layer of the seven layers of the Open System Interconnection (OSI) model (paragraph 0016,

lines 1-4, paragraph 0017, lines 1-21, paragraph 0018, lines 1-9).

Re claims 6, 13, and 20, Schell further teaches the method, system, and computer program product, further comprising:

upon determining that the responding management server is not on the list of trusted management servers, downloading a boot program from a known trusted boot server in a secure local area network LAN.

[Schell does not specifically state upon determining that the responding management server is not on the list of trusted management servers, downloading a boot program from a known trusted boot server in a secure local area network LAN. However, Schell teaches discarding the received network packets transmitted by an unauthorized server (column 5, lines 20-22). Thus, it is determined that an untrusted server sent the packets and no download is initiated towards the client computer (i.e. determining that the responding boot program server is not on the list of trusted boot program servers). Only when the network packets are verified to be from a trusted server, the download is permitted over the LAN (column 3, lines 53-55, column 5, lines 13-20) (i.e. downloading a boot program from a known trusted boot server in a secure local area network LAN).]

Re claims 7, 16, and 21, Frye and Schell further disclose the method, system, and computer program product as per claims 6, 15, and 20, further comprising:

managing different types of boot program servers available to the server blade by maintaining, in an information technology services organization logically oriented between the different types of boot program servers and the server blade (Frye, paragraph 0022, lines 1-20), a permission list of boot program servers authorized for each server blade in a server blade chassis (Schell, column 2, lines 3-11).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Stoynov whose telephone number is (571) 272-4236. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SS

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